

In the Claims:

1. (currently amended) An electrode material for electrical discharge machining made of a W-Cu alloy containing at least 40% by weight of ~~[[W-(1),]]~~ W, at most 15% by weight of one of an additional element and a compound ~~[[thereof (3),]]~~ thereof, and a balance of ~~[[Cu-(2),]]~~ Cu, containing, as one of said additional element and said compound ~~[[thereof-(3),]]~~ thereof, at most 10% by weight of at least one selected from an alkali metal element, an alkaline-earth metal element and a rare-earth element, and an oxide, a hydroxide, a nitride, a boride and a sulfide of said elements in particles having a mean particle diameter of less than 3 μ m.

2. (original) The electrode material for electrical discharge machining according to claim 1, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles has a mean particle diameter of less than 1 μ m.

3. (original) The electrode material for electrical discharge machining according to claim 1, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles has a mean interparticle spacing of at most 10 μ m.

1 4. (currently amended) The electrode material for electrical
2 discharge machining according to claim 1, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
7 the ~~[[Cu-(2)-]]~~ Cu.

1 5. (currently amended) The electrode material for electrical
2 discharge machining according to claim 1, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
7 some of ~~[[W-(1)]]~~ W particles.

1 6. (original) The electrode material for electrical discharge
2 machining according to claim 1, wherein said alkali metal
3 element, said alkaline-earth metal element and said
4 rare-earth element, and said oxide, said hydroxide, said
5 nitride, said boride and said sulfide of said elements are
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and
7 a hydroxide thereof.

1 7. (currently amended) The electrode material for electrical
2 discharge machining according to claim 1, wherein said
3 ~~[[W-(1)]]~~ W contains at least 30% by weight of particles
4 having a particle diameter of at most 1 μ m with respect to
5 all of ~~[[W-(1)]]~~ W particles.

1 8. (currently amended) The electrode material for electrical
2 discharge machining according to claim 1, wherein at most
3 10% by weight of Ni is further contained instead of a
4 portion of said ~~[[Cu-(2)-]]~~ Cu.

1 9. (original) A method of manufacturing the electrode material
2 for electrical discharge machining recited in claim 1,
3 using a source powder containing a Cu powder and/or a W
4 powder, and a powder of at least one selected from an
5 alkali metal element, an alkaline-earth metal element and
6 a rare-earth element, and an oxide, a hydroxide, a nitride,
7 a boride and a sulfide of said elements, said source powder
8 being mixed by using one of a mechanical alloying method,
9 a method of using a fine source powder, and a
10 coprecipitation method.

1 10. (currently amended) An electrode material for electrical
2 discharge machining made of a W-Cu alloy containing at
3 least 40% by weight of ~~[[W-(1)-]]~~ W, at most 15% by weight
4 of one of an additional element and a compound ~~thereof-(3)-~~
5 thereof, and a balance of ~~[[Cu-(2)-]]~~ Cu, containing, as
6 one of said additional element and said compound ~~thereof~~
7 ~~(3)-~~ thereof, at most 10% by weight of at least one
8 selected from an alkali metal element, an alkaline-earth
9 metal element and a rare-earth element, and an oxide, a
10 hydroxide, a nitride, a boride and a sulfide of said
11 elements in particles having a mean interparticle spacing
12 of at most 20µm.

1 11. (original) The electrode material for electrical discharge
2 machining according to claim 10, wherein said at least one
3 selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles has a mean
7 particle diameter of less than 1µm.

1 12. (original) The electrode material for electrical discharge
2 machining according to claim 10, wherein said at least one
3 selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles has a mean
7 interparticle spacing of at most 10µm.

1 13. (currently amended) The electrode material for electrical
2 discharge machining according to claim 10, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
7 the ~~[[Cu-(2)-]]~~ Cu.

1 14. (currently amended) The electrode material for electrical
2 discharge machining according to claim 10, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride

6 and said sulfide of said elements in particles exists in
7 some of ~~[[W-(1)]]~~ W particles.

1 15. (original) The electrode material for electrical discharge
2 machining according to claim 10, wherein said alkali metal
3 element, said alkaline-earth metal element and said rare-
4 earth element, and said oxide, said hydroxide, said
5 nitride, said boride and said sulfide of said elements are
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and
7 a hydroxide thereof.

1 16. (currently amended) The electrode material for electrical
2 discharge machining according to claim 10, wherein said
3 ~~[[W-(1)]]~~ W contains at least 30% by weight of particles
4 having a particle diameter of at most 1μm with respect to
5 all of ~~[[W-(1)]]~~ W particles.

1 17. (currently amended) The electrode material for electrical
2 discharge machining according to claim 10, wherein at most
3 10% by weight of Ni is further contained instead of a
4 portion of said ~~[[Cu-(2)-]]~~ Cu.

1 18. (original) A method of manufacturing the electrode material
2 for electrical discharge machining recited in claim 10,
3 using a source powder containing a Cu powder and/or a W
4 powder, and a powder of at least one selected from an
5 alkali metal element, an alkaline-earth metal element and
6 a rare-earth element, and an oxide, a hydroxide, a nitride,
7 a boride and a sulfide of said elements, said source powder
8 being mixed by using one of a mechanical alloying method,

a method of using a fine source powder, and a coprecipitation method.

19. (currently amended) An electrode material for electrical discharge machining made of a W-Cu alloy containing at least 40% by weight of ~~[[W-(1)],]~~ W, at most 15% by weight of one of an additional element and a compound ~~thereof-(3),~~ thereof, and a balance of ~~[[Cu-(2)],]~~ Cu, containing, as one of said additional element and said compound ~~thereof~~ ~~(3),~~ thereof, at most 10% by weight of at least one selected from an alkali metal element, an alkaline-earth metal element and a rare-earth element, and an oxide, a hydroxide, a nitride, a boride and a sulfide of said elements in particles having a mean particle diameter of less than 3 μ m and a mean interparticle spacing of at most 20 μ m.

20. (original) The electrode material for electrical discharge machining according to claim 19, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles has a mean particle diameter of less than 1 μ m.

21. (original) The electrode material for electrical discharge machining according to claim 19, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride

and said sulfide of said elements in particles has a mean interparticle spacing of at most 10 μ m.

22. (currently amended) The electrode material for electrical discharge machining according to claim 19, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles exists in the ~~[[Cu-(2)-]]~~ Cu.

23. (currently amended) The electrode material for electrical discharge machining according to claim 19, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles exists in some of ~~[[W-(1)]]~~ W particles.

24. (original) The electrode material for electrical discharge machining according to claim 19, wherein said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements are at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and a hydroxide thereof.

25. (currently amended) The electrode material for electrical discharge machining according to claim 19, wherein said ~~[[W-(1)]]~~ W contains at least 30% by weight of particles

4 having a particle diameter of at most 1µm with respect to
5 all of ~~[[W-(1)]]~~ W particles.

1 26. (currently amended) The electrode material for electrical
2 discharge machining according to claim 19, wherein at most
3 10% by weight of Ni is further contained instead of a
4 portion of said ~~[[Cu-(2)]]~~ Cu.

1 27. (original) A method of manufacturing the electrode material
2 for electrical discharge machining recited in claim 19,
3 using a source powder containing a Cu powder and/or a W
4 powder, and a powder of at least one selected from an
5 alkali metal element, an alkaline-earth metal element and
6 a rare-earth element, and an oxide, a hydroxide, a nitride,
7 a boride and a sulfide of said elements, said source powder
8 being mixed by using one of a mechanical alloying method,
9 a method of using a fine source powder, and a
10 coprecipitation method.

1 28. (currently amended) An electrode material for electrical
2 discharge machining made of a W-Cu alloy containing at
3 least 40% by weight of ~~[[W-(1)]]~~ W, at most 15% by weight
4 of one of an additional element and a compound ~~thereof (3)~~,
5 thereof, and a balance of ~~[[Cu-(2)]]~~ Cu, containing, as
6 one of said additional element and said compound ~~thereof~~
7 ~~(3)~~, thereof, at most 10% by weight of at least one
8 selected from an alkali metal element, an alkaline-earth
9 metal element and a rare-earth element, and an oxide, a
10 hydroxide, a nitride, a boride and a sulfide of said
11 elements in particles, wherein a content of said particles

having a particle diameter of at most 3 μ m is at least 0.3% by weight with respect to the entire alloy.

29. (original) The electrode material for electrical discharge machining according to claim 28, containing said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles, wherein a content of said particles having a particle diameter of at most 3 μ m is at least 0.6% by weight with respect to the entire alloy.

30. (original) The electrode material for electrical discharge machining according to claim 28, containing said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles, wherein a content of said particles having a particle diameter of at most 1 μ m is at least 0.3% by weight with respect to the entire alloy.

31. (currently amended) The electrode material for electrical discharge machining according to claim 28, wherein said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles exists in the ~~[[Cu-(2)-]]~~ Cu.

1 32. (currently amended) The electrode material for electrical
2 discharge machining according to claim 28, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
7 some of ~~[[W-(1)]]~~ W particles.

1 33. (original) The electrode material for electrical discharge
2 machining according to claim 28, wherein said alkali metal
3 element, said alkaline-earth metal element and said
4 rare-earth element, and said oxide, said hydroxide, said
5 nitride, said boride and said sulfide of said elements are
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and
7 a hydroxide thereof.

1 34. (currently amended) The electrode material for electrical
2 discharge machining according to claim 28, wherein said
3 ~~[[W-(1)]]~~ W contains at least 30% by weight of particles
4 having a particle diameter of at most 1 μ m with respect to
5 all of ~~[[W-(1)]]~~ W particles.

1 35. (currently amended) The electrode material for electrical
2 discharge machining according to claim 28, wherein at most
3 10% by weight of Ni is further contained instead of a
4 portion of said ~~[[Cu-(2).]]~~ Cu.

1 36. (original) A method of manufacturing the electrode material
2 for electrical discharge machining recited in claim 28,
3 using a source powder containing a Cu powder and/or a W

powder, and a powder of at least one selected from an alkali metal element, an alkaline-earth metal element and a rare-earth element, and an oxide, a hydroxide, a nitride, a boride and a sulfide of said elements, said source powder being mixed by using one of a mechanical alloying method, a method of using a fine source powder, and a coprecipitation method.

37. (currently amended) An electrode material for electrical discharge machining made of a W-Cu alloy containing at least 40% by weight of $[[W-(1)]]$ W, at most 15% by weight of one of an additional element and a compound ~~thereof (3)~~, thereof, and a balance of $[[Cu-(2)]]$ Cu, containing, as one of said additional element and said compound ~~thereof (3)~~, thereof, at most 10% by weight of at least one selected from an alkali metal element, an alkaline-earth metal element and a rare-earth element, and an oxide, a hydroxide, a nitride, a boride and a sulfide of said elements in particles, wherein a content of said particles having an interparticle spacing of at most 20 μ m is at least 0.3% by weight with respect to the entire alloy.

38. (original) The electrode material for electrical discharge machining according to claim 37, containing said at least one selected from said alkali metal element, said alkaline-earth metal element and said rare-earth element, and said oxide, said hydroxide, said nitride, said boride and said sulfide of said elements in particles, wherein a content of said particles having an interparticle spacing

8 of at most 10 μ m is at least 0.3% by weight with respect to
9 the entire alloy.

1 39. (original) The electrode material for electrical discharge
2 machining according to claim 37, containing said at least
3 one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles, wherein a
7 content of said particles having an interparticle spacing
8 of at most 10 μ m is at least 0.7% by weight with respect to
9 the entire alloy.

1 40. (currently amended) The electrode material for electrical
2 discharge machining according to claim 37, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
the ~~[[Cu-(2)-]]~~ Cu.

1 41. (currently amended) The electrode material for electrical
2 discharge machining according to claim 37, wherein said at
3 least one selected from said alkali metal element, said
4 alkaline-earth metal element and said rare-earth element,
5 and said oxide, said hydroxide, said nitride, said boride
6 and said sulfide of said elements in particles exists in
7 some of ~~[[W-(1)]]~~ W particles.

1 42. (original) The electrode material for electrical discharge
2 machining according to claim 37, wherein said alkali metal
3 element, said alkaline-earth metal element and said
4 rareearth element, and said oxide, said hydroxide, said
5 nitride, said boride and said sulfide of said elements are
6 at least one of Ba, Nd, Ce, Y, Ca and K, and an oxide and
7 a hydroxide thereof.

1 43. (currently amended) The electrode material for electrical
2 discharge machining according to claim 37, wherein said
3 ~~[[W-(1)]]~~ W contains at least 30% by weight of particles
4 having a particle diameter of at most 1µm with respect to
5 all of ~~[[W-(1)]]~~ W particles.

1 44. (currently amended) The electrode material for electrical
2 discharge machining according to claim 37, wherein at most
3 10% by weight of Ni is further contained instead of a
4 portion of said ~~[[Cu-(2).]]~~ Cu.

1 45. (original) A method of manufacturing the electrode material
2 for electrical discharge machining recited in claim 37,
3 using a source powder containing a Cu powder and/or a W
4 powder, and a powder of at least one selected from an
5 alkali metal element, an alkaline-earth metal element and
6 a rare-earth element, and an oxide, a hydroxide, a nitride,
7 a boride and a sulfide of said elements, said source powder
8 being mixed by using one of a mechanical alloying method,
9 a method of using a fine source powder, and a
10 coprecipitation method.